

USAWC STRATEGY RESEARCH PROJECT

AIDS and National Security

by

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The views expressed in this academic research paper are those of the author and do not necessarily reflect the official policy or position of the U.S. Government, the Department of Defense, or any of its agencies.

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REPORT DOCUMENTATION PAGE

Form Approved OMB No.
0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.

1. REPORT DATE (DD-MM-YYYY) 04-04-2003	2. REPORT TYPE	3. DATES COVERED (FROM - TO) xx-xx-2002 to xx-xx-2003		
4. TITLE AND SUBTITLE AIDS and National Security Unclassified		5a. CONTRACT NUMBER 5b. GRANT NUMBER 5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S) Baldwin, David S. ; Author		5d. PROJECT NUMBER 5e. TASK NUMBER 5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME AND ADDRESS U.S. Army War College Carlisle Barracks Carlisle, PA17013-5050		8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME AND ADDRESS ,		10. SPONSOR/MONITOR'S ACRONYM(S) 11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION/AVAILABILITY STATEMENT APUBLIC RELEASE ,				
13. SUPPLEMENTARY NOTES				
14. ABSTRACT See attached file.				
15. SUBJECT TERMS				
16. SECURITY CLASSIFICATION OF: a. REPORT Unclassified		17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 47	19. NAME OF RESPONSIBLE PERSON Rife, Dave RifeD@awc.carlisle.army.mil
b. ABSTRACT Unclassified		19b. TELEPHONE NUMBER International Area Code Area Code Telephone Number DSN		
c. THIS PAGE Unclassified				
				Standard Form 298 (Rev. 8-98) Prescribed by ANSI Std Z39.18

ABSTRACT

AUTHOR: Lieutenant Colonel David S. Baldwin
TITLE: AIDS and National Security
FORMAT: Strategy Research Project
DATE: 07 April 2003 PAGES: 47 CLASSIFICATION: Unclassified

Acquired Immunodeficiency Syndrome (AIDS) has become a rapidly spreading pandemic. Over 22 million people have died of AIDS since the epidemic began in the 1970s. In 2001, 3 million people died and an estimated 60 million people have been infected with the Human Immunodeficiency Virus (HIV) suspected of causing the disease. The rapid spread of AIDS and the related deaths pose a significant threat because of the destabilizing effect of the disease on those regions it has hit the hardest. In the short term, AIDS will continue to destabilize Africa. As the disease spreads through Asia and Eastern Europe, the impact will be global.

The scale of the HIV/AIDS pandemic and the potential for disruption of the internal security of many nations makes this disease a clear and direct threat to U.S. national security. Recognizing the threat of the disease, President George W. Bush outlined a plan to expand the U.S. global HIV/AIDS programs and their funding levels in the National Security Strategy of 2002. Elements of the Bush international HIV/AIDS policy include increasing U.S. development assistance, expanding prevention and treatment programs, and relaxing protection of intellectual property rights for pharmaceutical patents in order to increase access to expensive drugs in developing nations.

Alternatives to President Bush's international HIV/AIDS policy include increasing the level of federal funding for international HIV/AIDS programs, expanding the role of the military in helping to prevent AIDS, requiring mandatory foreign military HIV testing, challenging the relaxation of intellectual property rights, and raising the priority of developing an HIV vaccine.

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AIDS AND NATIONAL SECURITY

No war on the face of the world is more destructive than the AIDS pandemic. I was a soldier. I know of no enemy in war more insidious or vicious than AIDS, an enemy that poses a clear and present danger to the world. The war against AIDS has no front lines. We must wage it on every front.

— Colin Powell, U.S. Secretary of State, addressing the UN Special Session on AIDS, July 23, 2001¹

In the recently published National Security Strategy of the United States (2002), President George W. Bush commits the nation to leading “the world in efforts to reduce the terrible toll of HIV/AIDS and other infectious diseases.”² With this statement, the President extended the policy of the Clinton Administration that identified AIDS as a threat to national security. During the State of the Union Address in January, 2003, President Bush further raised the priority of the issue by announcing a five year, \$15 billion proposal to fight HIV/AIDS in Africa and the Caribbean.³ President Bush’s international AIDS policy makes great strides toward effectively combating the AIDS pandemic. Several elements of this policy, however, deserve debate. Alternatives to President Bush’s policy include raising federal spending levels for international HIV/AIDS programs, expanding the role of the military in helping to prevent AIDS, requiring mandatory military HIV testing, increasing protection of intellectual property rights, and raising the priority of developing an HIV vaccine. We will examine these alternatives to determine the most viable solutions to the threat posed by AIDS to U.S. national security.

Acquired Immunodeficiency Syndrome (AIDS) has become a rapidly spreading pandemic. Over 22 million people have died of AIDS since the epidemic began in the 1970s.⁴ The Brookings Institution summed up the terrible human toll by reporting that “more people have died from HIV/AIDS over the last twenty years than from any other disease in human history – including the global influenza pandemic of 1918-19 and the Bubonic Plague.”⁵ In 1997, 2.3 million people worldwide died from AIDS. Eighty-three percent of these deaths were in Sub-Saharan Africa.⁶ In 2001, 3 million people died and an estimated 60 million people have been infected with the Human Immunodeficiency Virus (HIV) suspected of causing the disease.⁷ There are 15,000 new HIV infections worldwide each day.⁸ HIV/AIDS, coupled with malaria and tuberculosis cause 25% of all deaths worldwide.

The United Nations estimates that between the years 2000 and 2020, 68 million people will die prematurely as a result of AIDS.⁹ Dr. Peter Piot, the director of the Joint U.N. Program on HIV/AIDS (UNAIDS) believes that the epidemic is still in an early phase and concurs that this is the largest epidemic in human history.¹⁰ The rapid spread of AIDS and the related deaths

pose a significant security threat because of the destabilizing effect of the disease on those regions it has hit the hardest. In the short term, AIDS will continue to destabilize Africa. As the disease spreads through Asia and Eastern Europe, the impact will be felt globally.

EPIDEMOIOLOGY

Most scientists believe that AIDS is caused by the Human Immunodeficiency Virus. When a person is infected with HIV, the virus kills infection-fighting cells known as CD-4 cells. Over time, the virus begins to overwhelm the patient's immune system as the virus begins to kill more CD-4 cells than the body can produce. Once this has occurred, the body loses its ability to fight off other infections like the flu or pneumonia that it could normally handle with ease.¹¹ These infections are called opportunistic infections. The Center for Disease Control considers a person to have AIDS when they are HIV infected and the number of CD-4 cells they have per cubic millimeter of blood drops below 200. A healthy adult CD-4 count is around 1000. Even without illness brought on by opportunistic infections, persons with AIDS are often so debilitated by the symptoms of AIDS (including lack of energy, weight loss, and persistent skin rashes), that they cannot hold down a job or even do household chores.¹²

HIV is most often spread through sexual contact with someone who is already infected with HIV. The chances of encountering someone who has been exposed to HIV goes up with the number of partners a person has. The risk of contracting HIV is very high among sex workers or people who indulge in "one-night stands" and do not use condoms.¹³ HIV is also commonly spread among injecting drug users who share HIV contaminated needles. Many people have become infected with HIV through contact with tainted blood, most often through transfusion of blood that has not been screened for the presence of HIV. HIV can also spread easily from infected mothers to their infants. Approximately one-third of all untreated pregnant women infected with HIV will pass the infection to their babies. Babies can also get infected with HIV that comes from an infected mother's breast milk.¹⁴

The earliest known instances of HIV were found in a blood sample taken in 1959 from an adult male from the Democratic Republic of Congo. Using these samples and a computer model, scientists now believe that the first case of HIV infection occurred around 1930 in West Africa.¹⁵ The epidemic began in the late 1970's when gay men in the United States and Sweden and heterosexuals in Tanzania and Haiti began to show signs of the disease that would be later called AIDS. In 1982, U.S. scientists and medical professionals used the term "AIDS" for the first time. By that year, 1,614 cases of AIDS had been diagnosed in the United States. Scientists first postulated the theory that HIV causes AIDS in 1983. Ten years later, 335,211

AIDS cases had been diagnosed in the United States and 157,637 Americans had died from the disease.¹⁶ There are approximately 900,000 Americans currently infected with HIV.¹⁷

THE THREAT OF AIDS IN AFRICA

While the rapid spread of HIV/AIDS is an alarming public health threat in the United States, the threat of the disease is far more profound in the developing world, especially in Africa. Africa has already begun to experience destabilization as a result of the AIDS pandemic. President Clinton wrote in his National Security Strategy for the year 2000 that "the epidemic of HIV/AIDS is devastating the continent, reversing hard-fought gains in development, dramatically reducing Gross Domestic Products (GDPs), and threatening security and stability in the hardest-hit nations."¹⁸ Two-thirds of the world's HIV population (28.5 million people) lives in Sub-Saharan Africa. In 2001, 2.2 million Africans died of AIDS and there are now 16 countries in Africa where more than one-tenth of the adult population aged 15-49 is infected with HIV.¹⁹ Infection rates run as high as 38.8% in some African countries.²⁰

AIDS contributes to the decline of existing African institutions and prevents creation of new, effective ones. The United Nations is concerned that "most countries have made impressive progress in human development since World War II. But those achievements are being undermined as countries lose young, productive people to HIV/AIDS, households fall into deeper poverty, economies stumble, and the impact of the epidemic is felt across societies."²¹ AIDS deaths devastate the economy of developing nations by killing off workers in their prime. AIDS has caused the average life expectancy in sub-Saharan Africa to drop from 62 years to 47 years.²² The loss of workers to AIDS profoundly affects enterprise and the workplace. Companies in Africa routinely experience an overall loss of skills and organizational memory in their workplace as seasoned workers with AIDS must be replaced with new, unskilled workers. UNAIDS reports that "AIDS weakens economic activity by squeezing productivity, adding costs, diverting productive resources, and depleting skills." The drain of experienced workers cuts profits in Africa by 6-8%.²³ AIDS affects all sectors of the African economy, including agriculture. The AIDS epidemic is the main cause of the food shortages in southern Africa because seven million agricultural workers in 25 African countries have died from AIDS since 1985.²⁴

AIDS kills teachers and health care professionals. For example, in Zimbabwe, 19% of male teachers and 29% of female teachers are infected. As teachers die off, the educational systems in developing countries are no longer able to meet their basic social mandates. Health care workers are concurrently experiencing a 5-6 fold increase in AIDS deaths.²⁵ Researchers

project that by 2005, 25% of the number of doctors currently practicing in southern Africa will die from AIDS.²⁶ The loss of health care workers has a spiraling effect. Fewer health care workers result in a shortage of beds in African hospitals. This, in turn, means AIDS patients must wait until the latter stages of their illness in order to qualify for a hospital bed. This delay in treatment reduces their chances of recovery, which increases the AIDS death rate.

The macroeconomic impact of the epidemic on Africa has been enormous. AIDS has a profound impact on growth, income and poverty. For those countries with national HIV/AIDS prevalence rates of 20% or more, GDP growth has been estimated to drop by an average of 2.6 percent annually. For example, South Africa faces a real GDP that will be 17% lower than the GDP without AIDS by the beginning of the next decade.²⁷ The U.S. Department of State explains that this drop in GDP is occurring in African countries because "resources that would have been used for investments will be used for health care, orphan care and funerals."²⁸

In addition to the economic impact of AIDS, the disease poses a threat to each African country's internal security. HIV/AIDS weakens pillars of social cohesion such as judicial, law enforcement, and civil administration systems. In Kenya, three quarters of deaths in the police force are from AIDS.²⁹ According to the Council on Foreign Relations, AIDS in Sub-Saharan Africa "disproportionately affects urban centers, the leadership elite, the educated, the mobile, and the influential. In 1997, a pregnant Rwandan had a 9 percent chance of being HIV positive if her husband was a farmer, a 22 percent chance if he was in the army, and a 38 percent chance if he worked for the government. Loss of skilled government officials, highly trained military leaders, and members of the entrepreneurial class undermines political leaders' capacity to govern."³⁰ The United Nations is concerned that "a State less able to provide social services (be they education, health, or justice) may unwittingly foster political alienation and weaken its own political legitimacy. Through its impact on both State and community capacity, AIDS can thus contribute to social disruption and perhaps even civil unrest."³¹ There are an estimated 11 million children orphaned by AIDS in sub-Saharan Africa.³² Failing states are not able to provide care for these orphans so they are lured into crime or militias by the prospect of family bonds and the promise of food. This results in an increase in violence in the failing states. The problem will soon become a catastrophe. The Council on Foreign Relations predicts that by 2010, AIDS will have created 42 million orphans worldwide.³³

AIDS further threatens internal security by disproportionately affecting African militaries. Peacetime infection rates are two to five times higher among armed forces than civilian populations, resulting in HIV infection rates as high as 50% in some African armed services. There are several factors in the military environment that lead to higher HIV infection rates.

Posting soldiers away from families for long periods of time frees the soldiers from traditional social controls and removes them from contact with spouses or regular sexual partners. Military posts therefore draw commercial sex workers as soldiers look for ways to relieve loneliness, stress, and built up sexual tension. A study found that 45% of Dutch sailors and marines on peacekeeping duty in Cambodia had contact with sex workers during a five month tour. Another study showed that 10% of US naval personnel and marines contracted a sexually transmitted disease during deployments in 1989-91. A second factor leading to higher HIV infection rates in the armed forces is that the military professional ethos encourages risk-taking on the battlefield. This ethos of risk taking and aggressiveness can increase a soldier's willingness to engage in dangerous behavior such as engaging in sex without using a condom. Another factor is that most military personnel are in the 15-24 year old age group. This group is at greatest risk for HIV infection because they are in the most sexually active age group. Finally, personnel on deployments, including peacekeeping deployments, generally have more money than locals which gives them the means to purchase sex.³⁴

High military HIV infection rates are dangerous. Because large proportions of young adults in many countries serve for at least a brief time in their nations' military, many more people are exposed to situations in which they may be infected with HIV than if they did not serve in the military. The large proportion of young adults serving briefly in the military can speed the spread of the epidemic once these people get out of the military. Soldiers or former soldiers return home and spread HIV to families and communities. Infected soldiers can spread the disease not only to their sexual partners, but also to the community through unscreened blood donations or sharing dirty needles. Medical personnel can also become infected by accidentally coming in contact with the blood of an infected soldier. High military HIV infection rates are also dangerous because HIV/AIDS can compromise military readiness as infection rates rise. Soldiers with symptoms become too sick to deploy. Though they can be replaced by new recruits, unit readiness suffers because the new recruits lack the experience of the sick soldiers they replaced. These drops in military readiness result in further destabilization to the countries suffering from the AIDS epidemic.

THE NEXT BIG WAVE

According to the *New York Times*, "the next big wave of HIV infections will be in Nigeria, Ethiopia, Russia, India, and China – nations that are regional or international 'powers' and account for nearly half of the world's population. Officials in these five nations need to understand that they are not only facing the prospect of millions of sufferers, but the very fabric

of their societies coming unraveled.³⁵ Ethiopia, Kenya and Nigeria are experiencing the destabilizing effects of the AIDS epidemic. These three regional hegemons are beginning to have difficulty in providing peacekeeping forces and contributing to growth and stability in Africa.

In Russia, HIV infection rates have quintupled since 1997 and Russia has experienced a 15-fold increase in infection rates in the past three years.³⁶ HIV/AIDS is spreading faster in Russia than anywhere else in the world.³⁷ The United Nations estimates that in 2001, one-quarter of a million people were newly infected with AIDS in Eastern Europe bringing the total number of infected people to about 1 million. Most HIV infections in Russia and Eastern Europe are from injecting drug use. Since an estimated 1% of the population of Russia injects drugs and socio-economic instability is spurring the commercial sex industry, the potential for an epidemic is enormous.³⁸

Though HIV infection was first reported in China in 1985, the Chinese government did not formally admit that the country had an AIDS crisis until August, 2001.³⁹ China has more than one million citizens living with HIV. There are severe localized epidemics in China. In some rural communities, the infection rates exceed 50 percent.⁴⁰ The UN predicts that by 2010, China will have over 10 million people living with AIDS. There are several factors that are contributing to this HIV epidemic. Injecting drug use and needle sharing is very prevalent in the southwest region of the country known as the "Golden Triangle". In central China, paid blood donors have a very high rate of HIV infection. In that region, blood banks would pool blood from several people in a container, remove the plasma, then put the remaining mixed blood back into the donors. This blood was often contaminated with HIV. Nearly half a million people may have been infected in this manner. In addition to blood pooling and injecting drug use, there has been a resurgence in prostitution in the coastal cities and inland metropolitan areas. Since only about 30% of Chinese prostitutes insist on condom use, the HIV infection rate is rising. A final factor that is contributing to an increase in HIV prevalence in China is the current large-scale migration of the rural labor force in the country. This migration is a consequence of China's economic reforms and government development policy. Migrants are often more vulnerable to HIV infection than the general population because they are often away from their spouses or normal sexual partners, they generally have more cash than they have at home, and their mobility makes them less accessible to government HIV prevention and education programs. This increase in migrant workers is transforming local HIV epidemics and spreading the virus throughout the country.⁴¹ The HIV explosion in China is beginning to affect the Chinese economy. In China, illness is the leading reason why families fall below the poverty line.⁴²

India now has 3.86 million citizens infected with HIV.⁴³ The HIV prevalence rate in India is currently only 0.7%, but the HIV rates are doubling in the groups currently most affected. AIDS activists note that "HIV infection in India is currently concentrated among poor, marginalized groups, including commercial sex workers, truck drivers, and migrant laborers, men who have sex with men and injecting drug users."⁴⁴ The epidemic, however, is beginning to shift toward the general community. In addition, because India's population is so large, an increase in HIV prevalence of only 0.1% represents an increase of half a million people.

THE THREAT TO U.S. NATIONAL SECURITY

Former Assistant Secretary of Defense for International Security Policy Ashton Carter defined security as "the avoidance and control of mass threat."⁴⁵ The scale of the HIV/AIDS pandemic and the potential for disruption of the internal security of so many nations makes this disease a clear and direct threat to U.S. national security. The HIV/AIDS pandemic already threatens U.S. economic interests in Africa. According to the Department of Defense Strategy for sub-Saharan Africa, "a democratic, secure, and prosperous Africa remains a United States foreign policy objective."⁴⁶ The United States currently imports fifteen percent of its oil requirements from sub-Saharan Africa, which is the same amount in volume it imports from the Middle East. This volume of oil from Africa will exceed twenty percent of US requirements by the year 2010 as U.S. energy investments in the region double. The U.S. also has an interest in maintaining access to Africa's ample supplies of valuable mineral deposits such as gold, diamonds, copper, and uranium. The African marketplace, with 800 million potential consumers, represents a huge, untapped market that would otherwise be promising for U.S. trade growth, but for the instability in the region, fueled increasingly by the AIDS pandemic.⁴⁷ The AIDS pandemic in other regions also adversely affects the U.S. economy because of the increasingly interdependent global economy. Developing countries receive 42 percent of U.S. exports. As demand for U.S. exports falls in countries hit hard by AIDS, people in the U.S. will lose their jobs.⁴⁸

If the spread of HIV/AIDS is unchecked in powerful countries such as Russia and China, global instability may result. Mark Schneider and Michael Moodie from the Center for International Strategic Studies have shown that "HIV/AIDS can be so pervasive that it assaults, as surely as prolonged armed conflict, the essence of the nation-state."⁴⁹ The instability in these countries can affect the U.S. directly through an increased likelihood that we will become entangled in their internal and regional conflicts as their social structures collapse and formal states lose their legitimacy. As states fail, non-state actors such as terrorists and drug lords

come into power, which can drive U.S. intervention to respond to those threats. As the AIDS crisis we see in Africa expands globally, the impact on the United States and the current world order will be profound. As Stephen Lewis, the United Nations Special Envoy for HIV/AIDS in Africa puts it, "everything breaks down in the face of AIDS."⁶⁰

CURRENT U.S. POLICY

In 2000, the Clinton Administration first officially recognized the mass threat that the AIDS pandemic posed to U.S. national security. President Clinton outlined a plan to fight AIDS in his National Security Strategy published in December 2000 that included increasing funding for AIDS awareness training in Africa and launching the Millennium Vaccine Initiative, which was an effort to create an HIV vaccine within 10 years. The Administration also planned for a Department of Defense program known as the Leadership and Investment in Fighting an Epidemic (LIFE) initiative. The LIFE initiative was a \$100 million effort that focused on HIV/AIDS training and prevention activities for selected sub-Saharan African militaries. The actions the Clinton Administration took included doubling bilateral assistance for the international fight against HIV/AIDS, leading the U.N. Security Council's first session on AIDS in Africa, leading the G-8's decision to link debt relief to HIV/AIDS prevention, launching a campaign to mobilize new resources from other donors such as the G-8 and the private sector, and successfully training African militaries through the LIFE program.⁵¹

Sharing the concerns of the Clinton Administration regarding the threat posed by the HIV/AIDS pandemic, President George W. Bush's National Security Strategy of 2002 expanded the U.S global HIV/AIDS programs and their funding levels. The Administration is taking an integrated approach to fighting the disease that focuses on prevention, education, and finding a cure, but also includes some funding for treatment of AIDS patients in developing countries. The Administration announced last year that "under President Bush's leadership, the United States will continue to pursue an integrated approach to fighting disease, focusing on prevention of new infections and training medical professionals, as well as treatment and care."⁵² The Administration's policy is to focus on prevention of HIV/AIDS as the most proven and cost-effective way to address the pandemic.

The elements of President Bush's current global HIV/AIDS strategy include increasing the amount of development assistance that the U.S. will provide in the form of grants instead of loans and backing the United Nation's Global Fund for HIV/AIDS, Malaria, and Tuberculosis. The United States will contribute \$200 million in seed money for this international public-private partnership that will provide grants for prevention, treatment, and care. The Administration will

also work with the G-8 nations and corporations, private foundations, and other organizations to encourage additional donations to the fund.⁵³ In addition to the steps outlined in the National Security Strategy, the Bush Administration's policy for addressing the AIDS epidemic includes establishing a cabinet-level HIV/AIDS Task Force, expanding the mandate of the Office of National AIDS Policy to better facilitate domestic and international policy efforts on HIV/AIDS, and increasing the total amount of federal funds dedicated to fighting HIV/AIDS globally.⁵⁴ During his State of the Union Address in January 2003, the President called for spending \$15 billion over five years to implement the Emergency Plan for AIDS Relief. This initiative would direct U.S. assistance toward nations in Africa and the Caribbean hit hardest by HIV/AIDS. The intent of the program is to prevent seven million new HIV infections, treat two million people who are already infected, and provide care for 10 million AIDS orphans.⁵⁵

The U.S. Agency for International Development (USAID) has the lead for coordinating the United States Government's efforts to prevent and combat HIV/AIDS in Africa. USAID offers technical and financial resources to government and non-government organizations for prevention and treatment of HIV/AIDS. USAID's FY02 HIV/AIDS funding was \$435 million. Of this amount, \$392 million was available for global HIV/AIDS programs, \$18 million went to help fund UNAIDS, and \$25 million went to research.⁵⁶ The four major program elements funded by USAID are primary prevention, caring for children affected by AIDS, home and community based care and treatment for AIDS patients, and health care capacity and infrastructure development. In addition, USAID spends money on surveillance and mother-to-child transmission reduction efforts.⁵⁷ USAID's HIV/AIDS budget for FY03 is \$510 million, which enables the agency to assist 50 countries, 23 of which are high priority countries.⁵⁸

USAID is executing an "expanded response" strategy to fight the epidemic. The intent of the strategy is to better enable countries to increase prevention programs, provide better HIV/AIDS treatment, and support children affected by AIDS. The elements of the strategy include increasing the number and priority of regional HIV/AIDS field offices, establishment of a condom and medical commodity fund, and creation of a better system for information management to monitor the status of the epidemic. The countries that receive USAID funds are grouped into three categories. Four countries – Cambodia, Kenya, Uganda, and Zambia – are in USAID's High Priority/Rapid Scale-up category. These countries are USAID's "main effort" for funding and receive increased resources to help combat new or rapidly spreading HIV epidemics. USAID has increased resources this year for the 19 countries, including Russia and India, in the Priority/Intensive Focus category that have been targeted to reduce the severity of their epidemics or to establish programs to keep HIV prevalence low. The remaining 31

countries that participate in USAID's Basic category program receive funding to help focus their governments on preventing large-scale epidemics.⁵⁹

The goals USAID has set to achieve with their expanded response strategy by 2007 are to reduce HIV prevalence rates among 15-24 year olds by 50 percent in high-prevalence countries, enable 25 percent of HIV-infected mothers in high-prevalence countries to have access to drugs that can reduce HIV transmission to their infants, help local institutions provide care to 25 percent of HIV-infected persons and children affected by AIDS in high-prevalence countries, and to maintain prevalence below 1 percent among 15-49-year-olds in low prevalence countries.⁶⁰

Complementing the USAID's global HIV/AIDS programs are the efforts of the Center for Disease Control (CDC). CDC, in partnership with the National Institutes of Health (NIH), is the agency responsible for conducting disease surveillance, determining how HIV is transmitted, and finding an HIV vaccine or cure. The FY 02 budget provided \$2.5 billion for the NIH for domestic HIV/AIDS research, which was an increase of \$258 million or 12% over the previous year.⁶¹ In addition, the CDC and NIH received \$188 million and \$144 million respectively for global HIV/AIDS research in FY02.⁶² Most of CDC's global HIV/AIDS funding is spent on the Global AIDS Program (GAP). This program is similar to the USAID's program in that it includes prevention, counseling, and surveillance elements. The GAP, however, puts additional focus on disease surveillance, monitoring of blood supplies, and infrastructure development.⁶³

The Department of Defense participates in the Administration's global fight against HIV/AIDS. The Naval Health Research Center (NHRC), located in San Diego, is DoD's Executive Agent for the DoD HIV/AIDS Prevention (DHAP) Program. DHAP had a budget of \$10 million in FY 01 and \$14 million in FY 02. The DHAP is an initiative to assist African countries in adapting and providing military-based HIV prevention programs to military and uniformed services personnel. The program implements, maintains, and evaluates military HIV preventative intervention programs. The goals of DHAP are to:

- Assist sub-Saharan African uniformed services in establishing HIV/AIDS-specific policies for their personnel.
- Assist sub-Saharan African uniformed services in adapting and providing HIV prevention programs.
- Train uniformed services personnel in sub-Saharan African countries to implement, maintain, and evaluate HIV prevention programs.
- Assist sub-Saharan African countries in the development of uniformed services culture interventions to reduce high-risk HIV attitudes and behaviors.

- Integrate with, and make use of, other U.S. Government programs and those managed by allies and the United Nations.
- Create electronic databases that can be used to determine incidence rates and the effectiveness of intervention programs.

The program is modeled after successful HIV prevention programs in the U.S. military and among basic trainees in Thailand.⁶⁴ DHAP efforts include programs in 19 sub-Saharan African countries. Program implementation is coordinated through Defense Attachés and involves close collaboration with African partner countries. The DHAP focuses on HIV/AIDS prevention programs including HIV screening, education and training, syndromic management of sexually transmitted infections, and mass awareness campaigns.⁶⁵ The priorities for funding of programs through the DHAP are primary prevention, then capacity and infrastructure development, including surveillance and laboratory improvements.⁶⁶ Much of the work done with DHAP funding is done via grants to contractors.

INCREASE SPENDING ON INTERNATIONAL HIV/AIDS PROGRAMS

Though the Bush Administration has increased international AIDS spending and expanded HIV/AIDS programs, the magnitude of the pandemic demands a greater U.S. effort. To meet this demand, the U.S. should drastically increase spending on International HIV/AIDS programs. According to the Washington Office on Africa (WOA), a church-sponsored, not-profit-advocacy group:

there is a ‘bottom line’ to the question of U.S. support in the fight against the AIDS pandemic, and that is money. Of course programs must be thoughtfully conceived, implemented, and evaluated. Of course there must be broad-based African commitment to AIDS initiative, a political will among governments, and a compassionate approach within faith communities. Of course we need to speak of education, prevention, treatment and care – all essential for meaningful international action. But when we direct our attention to all of these factors, we are still left with the fact that the scale of the pandemic is so stunning, especially in Africa, that without substantial funding AIDS will continue to devastate the continent, and the world.⁶⁷

In comparison to what the U.S. spends on other programs, the fact that we spend only \$1 billion per year on a threat as grave as the HIV/AIDS pandemic is surprising. *Washington Post* journalist Barton Gellman, criticizing the U.S. governments international AIDS budget, chides that “what the United States has been spending (on global AIDS programs)...is a rounding error for county budgets in Fairfax and Montgomery counties.”⁶⁸ In FY02, the United States Government spent \$10.2 billion through the Department of Health and Human Services to fight

HIV/AIDS domestically and the Congress is currently considering a \$262 billion bailout for U.S. insurance companies.⁶⁹ Temple University math professor John Allen Paulos notes that:

a little more than 50 years ago the United States spent what would be the equivalent today of almost \$100 billion on the Marshall Plan to help Europe recover after World War II. It was a magnanimous, humanitarian gesture that, by insuring a prosperous and vibrant Europe, also helped us economically. Five billion dollars earmarked for AIDS programs in sub-Saharan Africa is not an unreasonable expenditure. It is what a jury initially awarded last year to six people severely burned in a GM car, it's considerable less than what was spent on the military operation in Kosovo, and ...it's only 5 percent of what we spent on the Marshall Plan.⁷⁰

The amount of U.S. development aid is at its lowest point ever. WOA says that "over the past decade, U.S. development aid has steadily declined, and under the Bush budget, U.S. aid will be only .1% of the US economy. This is the lowest in the entire post-World War II era. It would equal 0.56% of total federal expenditures in 2002" which is the lowest share of the budget for development aid at any time.⁷¹

A study by B. Schwartlander, et al, published in Science provides an estimate of the cost of HIV/AIDS prevention and care needs in 135 low- and middle-income countries in 2005. The scientists predicted that by 2005, \$9.2 billion per year would be required worldwide to expand prevention, testing, and counseling programs for approximately 22 million people. In addition, that level of funding would allow 35 million women to receive prenatal testing and 900,000 pregnant women to receive antiretroviral drugs to prevent mother-to-child transmission. The money would also pay for over 6 billion condoms. Current spending on HIV/AIDS programs from all sources (including government spending, private donations, and the money families spend on treatment for relatives) in developing countries is only \$1.8 billion per year.⁷² Another study, conducted by the World Health Organization's Commission for Macroeconomics and Health and chaired by economist Jeffrey Sachs of Harvard, predicted that the annual cost for the global AIDS fight would be \$15.5 billion in 2007. This figure included a large investment in health care infrastructure to make treatment options more effective.⁷³ Based on these two studies, African advocacy groups call for an increase in U.S. spending on the global HIV/AIDS fight to \$2.5 billion annually, based on their assumption that the U.S. provides 25% of international HIV/AIDS spending and the annual requirement is approximately \$10 billion per year.⁷⁴

Another reason to increase U.S. global HIV/AIDS spending is that private donations and contributions from other countries to the U.N. Global Fund are falling short. U.N. Secretary Kofi Annan estimates the need to be \$10 billion per year for the fund. However, the fund is having

cash flow problems. Though the fund has received pledges from world governments and a few private foundations totaling over \$2 billion, they have, to date, received only \$500 million. Reasons for this shortfall include the fact that many donors are skeptical of giving money that ultimately ends in the hands of failing or corrupt governments. Donors want transparency in the government AIDS programs to ensure that the money they give does not end up in the personal Swiss Bank account of the ruler of the country that receives the money from the Global Fund. In addition, the economic downturn and financial turmoil following the terrorist attacks of September 11th, 2001 may have had an effect on donations to the Global Fund. As a result, no contributions have been made from the private sector since the Bill and Melinda Gates Foundation pledged \$100 million in 2001.⁷⁵ As a sign that the Global Fund is not ready to fully tackle the global HIV/AIDS pandemic, the Gay Men's Health Crisis reports that as of October 2002, the Global Fund's office did not even have functioning voice mail.⁷⁶

The FY02 U.S. budget for fighting AIDS internationally was \$988 million.⁷⁷ Current international AIDS spending is about \$1.1 billion. This represents 7% of the nation's foreign aid spending, which is less than 1% of total U.S. spending.⁷⁸ The spending plan proposed by the President during the State of the Union Address would only increase the international HIV/AIDS budget to \$3 billion per year. The requirements exceed the President's proposal. The U.S. Government should step in to meet the need by increasing overall international AIDS spending to \$5 billion annually. We should increase funding for USAID so they can support expanded AIDS prevention and surveillance programs in China, Russia, and India. We should increase spending to help developing countries improve health care infrastructure. The CDC should receive an additional \$400 million for a Global Health Security-Epidemic Alert and Response surveillance system to help find and stop localized HIV outbreaks before they become epidemic.⁷⁹ We must also increase spending on HIV/AIDS research to find a vaccine and a cure and offer a tax credit of up to \$1 billion for any drug company that develops and then cheaply produces an AIDS vaccine. The U.S. should also increase diplomatic efforts to get other countries and private donors to contribute to the U.N. Global Fund.

The U.S. can also help fund AIDS programs in developing countries by fully supporting international debt relief through the Highly Indebted Poor Countries (HIPC) Initiative. The intent of this initiative is to channel funds from debt relief repayments to health needs within the indebted country. The U.S. is owed \$6 billion by 41 countries considered by the HIPC. Since the face value of the debt is held at only 10% of the full value, Congress would only have to allocate \$600 million to write off the entire HIPC debt. The debt repayment funds could then go to HIV/AIDS prevention and treatment. A success story for this type of debt relief occurred

when Congress passed a debt relief and loan restructuring bond for Latin America in the 1980s. The region now enjoys a much more robust economy. This success with debt relief can happen again in Africa.⁸⁰

There are several advantages to increasing U.S. global HIV/AIDS spending. First, it is more cost effective to conduct humanitarian interventions now in states that are suffering from increasing HIV infection rates than waiting until those states fail and we suffer loss of trade or we are forced to intervene militarily. The emergency funding for the War on Terrorism and Homeland Security in the wake of the first terrorist attacks was \$27.1 billion.⁸¹ Increasing global HIV/AIDS spending in at-risk nations may help avert a future terrorist attack by helping those nations remain stable. Failing states are ripe breeding grounds for terrorists and other non-state actors that could become a threat to the United States. Our presence in those nations helps show the populace of developing nations the benevolent side of U.S. power. As U2 singer Bono puts it, "AIDS drugs are a great advertisement for America."⁸² A final argument for increasing U.S. spending is simply that if we do not increase our support of global HIV/AIDS programs, nobody else will.

Increasing U.S. global HIV/AIDS spending will require that the Administration overcome many political hurdles. As the discretionary federal budget top line continues to drop, international HIV/AIDS programs will have to compete with other U.S. foreign aid, expansion of DoD spending, and spending on HIV/AIDS treatment domestically. It will be difficult to increase any spending with a conservative, Republican Congress, but more spending for AIDS programs may be especially tough to get through. Opponents will argue that the U.S. is already the largest donor in the fight against HIV/AIDS, providing nearly 50% of all international HIV/AIDS funding.⁸³ Critics of the Clinton and Bush administration's inclusion of AIDS as a national security threat see that link as spurious. They believe that the link to national security was brought on merely by pressure from gay rights groups and the Africa lobby to divert National Security funds to AIDS programs.⁸⁴ Some members of Congress have strong constituencies that view AIDS as a "disease of sinners" and don't want to support programs here or overseas that advocate preventative measures such as needle exchange.

However, a poll conducted by the University of Maryland's Program on International Policy and Attitudes showed that 60% of Americans support using US foreign aid to ease hunger and encourage economic development.⁸⁵ Also, bipartisan support in Congress for improving the health status for developing countries is beginning to grow. In 2001, there was a 28 percent increase in support for global health initiatives.⁸⁶ A Kaiser survey showed that 64% of Americans polled supported the use of federal funds to help solve the problem of HIV/AIDS in

Africa. Of those polled, 33% were in strong support of such expenditures.⁸⁷ The popular support of these programs, coupled with a robust articulation of the threat to national security by the Republican Administration should be enough to override the concerns of Congress.

EXPAND MILITARY TO MILITARY CONTACTS

A policy change to significantly increase federal international AIDS spending would help preserve HIV/AIDS programs that would otherwise face cuts. For example, the current Department of Defense HIV program may be eliminated from the budget as defense leaders look for funds they can divert to pay for the War on Terrorism and homeland security. Diverting funds from AIDS programs has real risks. As discussed above, military forces in many developing nations are high risk groups for spreading HIV infections. High HIV infection rates and incidence of AIDS contributes to the failure of nation-states, which can lead indirectly to an increased terrorist threat to the United States. U.S. Military engagement programs can help mitigate these threats in many countries. The Administration, therefore, should consider not only retaining the current DHAP, but expanding the program beyond Africa to include countries in Asia and Central Europe that are threatened with HIV/AIDS epidemics. The Department of Defense should concurrently begin to include HIV/AIDS awareness training in all theater engagement exercises and military to military (mil-to-mil) contacts.

Reducing HIV infection rates by focusing on the military has proven successful in several countries. For example, the Royal Thai Army was instrumental in reversing the trend of rising AIDS rates in Thailand. The Thai Army led an education campaign that focused on teaching drug users about the dangers of sharing dirty needles and persuading prostitutes to insist that their customers use condoms. The campaign also included using the leadership of the army to help reduce the stigma of having HIV/AIDS to avert discrimination and encourage people at risk to seek testing and treatment for the disease. Without the intervention campaign, Thailand would have seen over 8 million AIDS cases since 1984 instead of just 1 million cases. The rate of men entering the army with HIV dropped from 3.7% in 1993 to .7 % in 2001.⁸⁸

The United Nations recognizes that "military service is a unique opportunity in which HIV/AIDS prevention and education can be provided to a large 'captive audience' in a disciplined, highly organized setting."⁸⁹ U.N. Security Council Resolution 1308 (2000) recognized the need to incorporate HIV/AIDS prevention awareness skills for U.N. peacekeeping personnel. The U.N. calls for military HIV programs that include improved or expanded prevention education, condom education and distribution, provision of counseling and testing services, and training foreign militaries to assist their governments in disease

surveillance. The U.N. notes that "uniformed services, including armed forces and police, are often perceived as role models in their society."⁸⁰ Military/uniformed services in many societies represent the only source of security or stability. If our military teaches foreign militaries how to prevent the spread of HIV, then their soldiers act as role models to reduce the spread of HIV.

Leadership by the U.S. military can help export such programs and successes like that enjoyed by the Royal Thai Army to the military forces of other countries. The DHAP is already a model to effectively target the young people that make up a developing country's armed forces with HIV awareness messages. In addition to the DHAP, U.S. mil-to-mil contacts can assist foreign militaries in addressing underlying vulnerability factors. The U.S. armed forces can help foreign governments plan changes to posting practices, including learning to place an emphasis on maintaining family life (within cultural limitations). We can help change the universal military culture in most nations by teaching the U.S. approach to risk mitigation. This will help reduce the ethos of risk taking in foreign military organizations. Finally, our soldiers can set the example for military attitudes toward civilian populations. We can teach soldiers to deal humanely with refugees and disaster victims. We can teach concern for human rights, protection of civilians, and compassion.⁹¹

Critics would counter that using military forces or DoD assets for HIV/AIDS prevention programs is a costly diversion of resources that are already stretched thin because of the War on Terrorism. The operations tempo of our armed forces may be too high now to take on additional requirements. However, there are cost effective methods to continue to employ U.S. military forces in HIV/AIDS prevention programs, without overtaxing our active forces. Units can conduct HIV prevention training for host nation militaries concurrently with already programmed theater engagement missions and exercises such as medical exercises, European Command and Central Command peacekeeping exercises, and Special Forces Joint Combined Exchange Training. The Army Reserve and National Guard are still largely untapped as less than 20% of these reserve forces have been mobilized to support homeland security and overseas missions. Reserve units could be used by Combatant Commanders to increase the number of engagement missions they conduct in countries with high HIV infection rates. The increase in engagement missions and exercises, coupled with more American military personnel helping developing countries fight AIDS would have collateral benefits in the War on Terrorism. More citizens of developing nations would see Americans performing a humanitarian mission, which may help reduce anti-American sentiment among at least a few people. A more direct benefit in the War on Terrorism would come from the bolstering of states at risk of failure.

REQUIRE MANDATORY HIV TESTING

Because of the key role that a country's military can play in determining the rate that the HIV epidemic spreads, the United States should require mandatory, but confidential, military HIV testing as a requirement for countries seeking NATO membership or U.S. military aid.

Mandatory military HIV testing was first established in the United States in 1985 and has proven highly successful in keeping HIV infection rates among U.S. military personnel low, primarily through the increase in HIV awareness that comes with the testing. By 1995, 93% of militaries worldwide were performing mandatory testing, but this testing is done primarily in developed countries that are not experiencing an AIDS epidemic.

The United Nations and AIDS activists, however, are opposed to mandatory HIV testing because they believe that mandatory testing without informed consent is a violation of human rights. U.N. Security Council Resolution 1308 (2000) calls for only voluntary and confidential testing of U.N. peacekeepers. Many countries resist HIV testing and training for their soldiers because they are concerned about the social stigma associated with the disease. AIDS activists argue that the military preventing HIV-positive people from working or deploying is a violation of the universal right to work that every person should enjoy. A positive test in an asymptomatic person does not bear on that person's ability to work. UNAIDS believes that "apart from illness and death due to AIDS, the greatest impacts on armed forces personnel who are known or even suspected to be HIV-positive may be their career advancement and social lives, especially in societies or workplaces where there are no measures to protect them from stigmatization" and discrimination.⁹² Compelling some nations to conduct mandatory testing for their militaries may be difficult because in Africa, often the higher a soldier or officer's rank, the more likely they are to be HIV-positive.⁹³

UNAIDS believes that mandatory testing is a violation of human rights that cannot be justified by military-specific demands. UNAIDS argues that militaries should show that mandatory testing achieves goals better than voluntary testing and that militaries must show compelling evidence that aspects of the military workplace make it different from other workplaces.⁹⁴ They submit that voluntary testing of military personnel is adequate for HIV screening.

Clearly, however, the military workplace is substantially different from other workplaces or UNAIDS would not be publishing studies that show conclusively that HIV infection rates are many times higher in the military than in the civilian sector. But besides the increased prevalence of HIV in some nation's militaries, the work environment of a soldier is significantly different than that of a civilian worker. The primary difference is that the occupation is inherently

more dangerous than most civilian occupations, including agricultural work. The risk of getting shot and bleeding is higher in the military. If the wounded soldier is HIV-positive, contact with his or her blood would put fellow soldiers at risk of infection. Though the military could equip all soldiers with protective gear to prevent them from getting infected through contact with HIV-tainted blood, it is simpler to eliminate that threat by screening HIV-positive soldiers and then assign them to non-combat duties.

Mandatory testing for military forces is far more effective in reducing the risk of HIV to the force because everyone tests under mandatory testing. Voluntary testing is far less likely to achieve the goal of identifying the maximum number of soldiers infected with the virus. Fear of stigmatization or discrimination against persons with HIV or AIDS will often keep people from volunteering to be tested. Also, voluntary testing is not effective without guarantees of treatment if one tests positive for HIV.

Implementing mandatory military HIV-testing should require a concerted effort to reduce the stigmatization of the disease so soldiers or enlistees that test positive will not suffer from discrimination. This effort to reduce the stigma of HIV/AIDS will be particularly difficult in countries that discharge soldiers for having HIV, which, in itself, is a form of discrimination. The campaign conducted by the Royal Thai Army serves as a model for reducing stigmatization of the disease. The U.S. military must improve its efforts to reduce stigmatization of the disease within its own ranks before we send more military personnel overseas on HIV awareness training missions.

Because of the threat of spreading HIV when soldiers deploy and the combat risks associated with HIV-tainted blood, an HIV positive test must be a barrier to enlisting in the armed forces. A positive test should also make a person currently serving non-deployable, though each organization must make every effort to keep the test results confidential. Countries with large military forces, such as the United States, could retain HIV-positive soldiers by assigning them to the many military jobs that do not require the incumbent to deploy. Some countries, however, may have to discharge HIV-positive soldiers because they cannot afford to retain non-deployable soldiers. U.S. policy should be to strongly recommend retention of HIV-positive soldiers in non-deployable jobs to help reduce the stigma of the disease. Many countries have no choice but to retain HIV-positive soldiers. For example, Nigeria will retain soldiers infected with HIV since, as Defense Minister Theophilus Danjuma puts it, "if we fail to do that, we may soon find no troops to command."⁸⁵

PROTECT INTELLECTUAL PROPERTY RIGHTS

In the new National Security Strategy, President Bush includes the policy of seeking to relax intellectual property rights where necessary to combat AIDS globally. The policy would allow licensing of foreign manufacturers to make U.S. AIDS drugs locally and could even allow suspension of U.S. and international patent protections to enable developing countries to produce enough AIDS drugs to deal with the epidemic. Intellectual property refers to ideas, literary works, inventions, and symbols used in commerce. Intellectual property is protected by patents and trademarks that grant inventors the right to market their inventions to allow them to recoup the costs of developing their product or invention. The Pharmaceutical Research and Manufacturers of America point out that "intellectual property protection has deep, historical roots in the United States. Our founding fathers felt so strongly about the importance of innovation that patent protection is the only right expressly mentioned in the original articles of the U.S. Constitution."⁹⁶ Article I, Section 8 of the U.S. Constitution established Congress's authority to "promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries." This idea was brought over from British common law. The Founders believed that "the right to useful inventions seems with equal reason to belong to the inventors" so they included the notion of protection of property rights in the Constitution.⁹⁷ Congress exercised this Constitutional authority by passing the Patent Act of 1793 which established the patent system still in use in the United States today. Current U. S. law grants exclusive intellectual property rights to a patent holder from twenty years after the date of the original patent application. The patent protections are extended internationally by agreements among members of the World Trade Organization (WTO) such as the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement which went into effect in January, 1995.⁹⁸ When countries join the WTO, they agree to protect the patent rights of countries that sell products within their countries. According to the TRIPS agreement, WTO members agree to protect the patents for pharmaceuticals for a minimum of 20 years.

International AIDS activists have voiced concerns that governments have not adequately addressed the problem of delivering AIDS drugs to impoverished countries. The activists claim that pharmaceutical companies are profiting unfairly from the misfortune of AIDS victims. At issue is the exorbitant cost of the antiretroviral drugs (ARVs) that slow the replication of HIV in infected patients. Intellectual property rights protection for AIDS drugs prevent developing countries from locally manufacturing generic versions of the expensive AIDS drugs.⁹⁹

Developing countries have called for suspensions of intellectual property rights for AIDS drugs to help alleviate the destabilizing public health crisis.¹⁰⁰

In 1997, South Africa passed the “Medicines and Related Substance Act” which would have allowed for compulsory licensing and parallel importing of needed drugs to address the HIV/AIDS crisis. Compulsory licensing occurs when a government or company manufactures and sells a drug without the permission of the patent holder. Parallel imports occur when drug prices vary according to the country in which they are sold. Drug prices can vary greatly in different parts of the world because of local intellectual property rules, local income, and competition within a country. For example, the drug Fluconazole costs \$8.25 for 200mg in South Africa, but a generic version of Fluconazole costs \$0.25 for 200 mg in Thailand. The advantage of parallel imports is that one can “shop around” to find less expensive versions of the same drug in different countries. It is frequently the best way for developing countries to get access to HIV/AIDS drugs.¹⁰¹ After a three year court case, however, the South African law was blocked by a suit filed by 39 pharmaceutical firms. The United States strongly opposed the South Africa law and declared that it violated international property rights.¹⁰²

The initial Bush policy on intellectual property rights was to staunchly protect drug patents. Paula J. Dobriansky, Under Secretary of State for Global Affairs commented in 2001 that “it is important to remember the critical role of intellectual property protection in encouraging innovation and the extensive research needed to develop new medications and, ultimately, a vaccine and cure.”¹⁰³ In the 2002 National Security Strategy, however, the Administration softened the tone on intellectual property rights by stating that “we will ensure that the WTO intellectual property rules are flexible enough to allow developing nations to gain access to critical medicines for extraordinary dangers like HIV/AIDS, tuberculosis, and malaria.”¹⁰⁴ In November 2001, the WTO agreed that TRIPs “does not and should not prevent members from taking measures to protect public health” which means that countries can issue compulsory licenses and allow parallel importing without legal challenges from other WTO members.¹⁰⁵ The United States has since announced agreement to support relaxation of the WTO TRIPS agreement rules governing patents of medicines and will grant countries on a case-by-case basis the right to obtain cheaper drugs during a health emergency.

This policy of relaxing intellectual property rules for AIDS drugs has several advantages. The policy would increase access to AIDS drugs in developing nations by enabling those countries to locally manufacture the drugs at a much lower cost than purchasing drugs directly from U.S. manufacturers. This would help slow AIDS deaths and even reduce instability in the developing countries by retarding development of AIDS in HIV infected workers. In addition, the

mere threat of suspending intellectual property rights has helped keep pharmaceuticals at the bargaining table for reducing drug costs and establishing public/private partnerships to fight AIDS. Subsequent to the lawsuit in South Africa over the Medical and Related Substances Act, the South African Government agreed to abide by the TRIPS rules. In return, the pharmaceutical companies agreed to supply HIV/AIDS drugs at drastically reduced prices - as low as \$700 for a years' supply in some cases. Because relaxing intellectual property rules can help reduce the price of drugs, the policy has the added advantage of being popular politically among domestic AIDS activists and international health organizations.

This policy, however, has several disadvantages. Suspending intellectual property rights for American AIDS drugs will result in less private capital available for further drug research and development and would stifle innovation. The relaxation of the intellectual property rights rules can be interpreted to include the ability for a country to suspend the patents on the drugs to enable third party manufactures to make the product. The consequence of suspending drug patents is that the U.S. drug companies holding the patent for the AIDS drugs would receive no revenue for their invention if the drugs are manufactured by another company while the patent is suspended. The impact on U.S. drug companies of such suspensions would be profound. A study done by the Center for the Study of Drug Development at Tufts University showed that it costs an average of \$802 million in research and development for each new drug that reaches the market.¹⁰⁶ Most of this money comes from private sources rather than the federal government. The NIH spends only \$1 billion per year on drug and vaccine development. The single largest public investment for developing a pharmaceutical was only \$45.9 million toward the development of the cancer drug Proluekin.¹⁰⁷ In contrast, the U.S. pharmaceutical industry spends over \$30 billion per year of private capital on research and development, which is \$10 billion more than the entire annual budget of the NIH.¹⁰⁸ Since pharmaceutical industry research and development spending is about 21 percent of sales (which is more than twice the level of any other industry), slashing the cost of AIDS drugs or permitting foreign companies to step in would make less money available to drug companies to conduct further AIDS research. Since the process of new drug discovery is financially risky, few pharmaceutical companies would continue AIDS research if they could not recoup their investments.¹⁰⁹ The drop in research funding would stifle the innovation of the U.S. scientists who now lead the world in pharmaceutical breakthroughs. A second order national security impact is that these companies and their scientists would also have less money with which to conduct research into bioweapons defense.

There are also disadvantages associated with relaxing intellectual property protection to allow parallel importing of drugs. Allowing parallel imports has proven to be problematic in some developing nations because it can lead to black marketing of drugs. Countries or import companies in AIDS-ravaged regions buy drugs inexpensively in other countries. Rather than using the drugs to alleviate suffering in their own country, they then sell those drugs on the black market in developed countries to make a profit. The goal of increasing access to HIV/AIDS drugs by relaxing intellectual property rights in certain countries is thus frustrated as black marketers reap the benefit of the policy at the expense of both the drug companies and AIDS victims.

Finally, the greatest disadvantage of the relaxation of intellectual property rights is that the policy violates a fundamental right guaranteed by the U.S. Constitution. The bottom line issue at the root of the intellectual property rights debate is how to find ways to increase access to AIDS drugs. The United States should fully exploit all viable options for increasing drug access before advocating suspension of constitutional rights, especially when those rights are the ones that protect and spur innovation. Innovation is arguably one of America's greatest assets and the HIV/AIDS pandemic ultimately demands an innovative, scientific solution.

An alternative to the Bush Administration policy of relaxing intellectual property rights is for the federal government to reimburse pharmaceutical companies for the development costs of the most effective HIV/AIDS drugs. Since the drug companies claim that development costs are the main driver of drug pricing, the government could then require that the pharmaceutical companies lower the price of their HIV/AIDS drugs. The money to pay for reimbursement of drug development costs could come from the expanded U.S. budget earmarked for the Global Fund. The resulting drop in drug prices will enable the money donated to the Global Fund in future years to provide treatment for many AIDS patients worldwide.

A program to use federal funds to reimburse drug development costs directly attacks the problem of reducing HIV/AIDS drug prices and increasing access to AIDS medicines. Such a policy would recognize the financial risk drug companies undertake when developing new drugs and would reward innovation by helping the pharmaceuticals recoup their research investments. This approach would also tackle the threat to national security without violating principles enshrined in the Constitution. A further benefit of this program is that it would result in reduction of AIDS drug prices not just for patients in developing countries, but for U.S. AIDS patients as well.

AIDS activists may object to this policy of reimbursing pharmaceutical companies for their drug development costs. Some AIDS activists vilify the drug companies by accusing them of

placing profits before human life by overpricing HIV/AIDS drugs. The activists may see the reimbursement policy not as a program that rewards innovation and risk taking, but instead as a form of corporate welfare. To make this course of action more palatable to humanitarian groups and AIDS activists, the U.S. Government should insist that the pharmaceuticals fully disclose the profits they make from the sale of AIDS drugs to be eligible for the reimbursement program. While the drug companies certainly have a right to profit from their innovations, they must fully account for the government's contributions in the drug price reductions to show that they are not unfairly profiting from the pandemic.¹¹⁰

INCREASE EMPHASIS ON DEVELOPING AN HIV/AIDS VACCINE

Even more hotly debated than the issue of intellectual property rights is the question of how to prioritize spending of international AIDS funds between treatment, prevention, and research programs. Senator Bill Frist said that this debate over the priority for spending AIDS dollars is "one of the most important moral, humanitarian, and foreign policy decisions of the next century."¹¹¹

AIDS activists and the international community argue that much more money must be spent on AIDS treatment to reduce human suffering. This has prompted an increase in U.S. spending on HIV/AIDS treatment programs overseas. Philanthropists such as Bill Gates and Ted Turner are concerned that treatment is taking precedence over prevention programs. Former Senator Timothy Wirth, who is now president of Ted Turner's United Nations Foundation, warns that "in any political system, the pressures for funding come from people who are already sick...I'm concerned that all of the pressure on treatment issues will squeeze out prevention." Senator Frist argues for a "balanced approach of prevention, care and treatment and research and development."¹¹² Because money for global HIV/AIDs programs remains limited, however, the Bush Administrations continues to make prevention programs a higher priority than AIDS treatment.¹¹³ Activist Paul Davis, of ACT UP-Philadelphia, counters by noting that prevention without the hope of treatment will fail because "if the only thing you get out of prevention is testing, stigma, and a death sentence, why would you like to listen to a prevention pitch?"¹¹⁴

The solution to this debate is to make research for an HIV/AIDS vaccine the top priority for federal international HIV/AIDS spending. Though prevention measures have been helpful in slowing the disease and new AIDS treatments certainly alleviate suffering, only research into a cure or vaccine will end the AIDS threat. Therefore, the Administration should shift its main AIDS fighting priority to research, while continuing to improve prevention and treatment

programs through funds made available with expanded budgets. To facilitate this effort, the Administration should spend more money internationally on disease surveillance, health care infrastructure, laboratories, information management, and vaccine research.

UNAIDS proposes to spend nearly 44% of the Global Fund on treatment of AIDS patients. This money, along with the money the U.S. spends on international AIDS treatment, does not go far because of the very high cost of HIV/AIDS drugs. HIV infections are treated with a combination of drugs. Reverse transcriptase inhibitors, such as AZT, interrupt the early stages of the virus making copies of itself in human CD-4 cells. These drugs can slow the spread of HIV and delay the collapse of the immune system. Protease inhibitors interrupt virus replication at a later stage in the virus life cycle. When these two types of inhibitors are taken together, it is referred to as highly active antiretroviral therapy (HAART). This treatment has proven to be very effective in slowing the replication of HIV in humans. Untreated HIV patients usually die within two years of developing AIDS. AIDS patients treated for opportunistic infections, but not given highly active antiretroviral therapy (HAART), on average, live for an additional two years. Patients given HAART before developing AIDS live for an additional five years.¹¹⁵ Patients given HAART that already show symptoms of AIDS live an additional 1.8 years.¹¹⁶ Since the combination of drugs attack the virus at different stages of replication, it is less likely that resistant strains of the virus can develop in a person undergoing HAART. HAART has significantly reduced the number of AIDS deaths in the U.S. and has even allowed many AIDS patients to become well enough to return to work.¹¹⁷

However, a typical HIV/AIDS HAART “cocktail” costs over \$10,000 per year in the U.S. for the drugs alone. To treat all HIV infected persons in Africa would cost over \$220 billion per year.¹¹⁸ Even with a drastic reduction in HIV/AIDS drug prices through other policy measures, AIDS treatment in developing countries presents many challenges. The patient undergoing the drug regimen must be supervised by highly trained medical personnel, and sophisticated medical systems do not generally exist in developing countries. In addition, the number of newly infected patients infected with drug-resistant strains of HIV is rapidly rising. As many as 10 percent of all new HIV infections are caused by drug resistant strains of the virus. “HIV mutates each time it divides, and it divides every eight to 12 hours.”¹¹⁹ This causes treatment costs to rise since more powerful drugs or more complicated drug combinations must be used to combat the mutated viruses. In addition, patient care costs rise since patients with the drug-resistant forms of HIV take an average of 12 weeks of treatment before HIV replication slows versus 4 weeks in patients infected with “normal” HIV strains. Doctors that supervise the administration of the HAART regimens that can combat the resistant strains require additional training to

prevent new strains from developing. This training is rarely available in developing countries.¹²⁰ The Department of State notes that "HIV/AIDS cannot be stopped with today's drugs; it can only be slowed down. Provisions of ARVs must be accompanied by programs that train health care professionals, build laboratory services, and improve drug management systems."¹²¹ Spending large sums of money on less effective AIDS drugs may only be making the epidemic worse as these older drugs allow new strains of HIV to evolve more rapidly.

Because antiretroviral drugs do lengthen lifespan and alleviate suffering, the Administration should continue to spend money on international AIDS treatment for humanitarian reasons and to help keep infected leaders and civil servants at work. In addition, spending money on treatment provides an incentive for people to get tested for HIV. Spending on treatment programs should not, however, be to the exclusion of fully funding HIV/AIDS research. Since treatment funds are limited, we should focus the bulk of these funds on preventing mother to child transmission. If pregnant women are treated with AZT and deliver their babies by cesarean section, the chances that the baby will be infected drops from 30% to 1%.¹²² AZT is relatively cheap. With a moderate increase in spending on mother-to-child transmission programs, we could prevent many new infections. This type of program would also be an easy sell to the private sector (and to Congress) for compassionate donations. Since this program would only keep infants from becoming infected and would not necessarily save the lives of the infected mothers, each country would need a viable and robust orphan care program.

Though HIV/AIDS prevention and treatment programs are important elements of the overall strategy to combat the pandemic, the primary strategy and main effort of the fight against HIV/AIDS must be to focus on finding vaccine. Health officials say that "only an effective, cheap vaccine can make significant inroads into the disease's impact in most areas of the world."¹²³ However, less than 10% of total amount of money on HIV/AIDS related research and development is spent on vaccine research.¹²⁴ Vaccines, once developed, are cheaper than treatment regimens and much easier to deploy in developing nations. The administration of a vaccine requires far less training for health care workers and less sophisticated health care infrastructure than the administration of HAART or even basic AIDS medications. Vaccines are also much more effective than prevention methods based on behavior modification. The U.S., therefore, should expand federal spending to accelerate HIV vaccine research. Since a vaccine is the only way to eradicate the disease, it must be the Administrations first priority for both policy and budgeting

CONCLUSION

With projections of millions of people falling sick and dying globally, the HIV/AIDS pandemic poses a serious challenge. The past two U.S. Presidents took important steps by recognizing HIV/AIDS as a grave threat to U.S. national security. Both Administrations began to heed the advice of Council on Foreign Relations member Dr. Jordan S. Kassalow, who explained why health is important to U.S. foreign policy as he wrote:

Improving the health of people in other countries makes both strategic and moral sense. Beyond enhancing security, prosperity, and democracy – and addressing the criticism that the benefits of globalization leave out the poor – a vigorous international health policy provides an opportunity for leadership that is grounded in the United States' strength in biomedical science and its applications. In sum, a foreign policy that gives higher priority to international health is good for the United States and good for the world, and it is a principle that can attract widespread agreement.¹²⁵

We must raise the U.S. foreign policy priority of international health to meet the HIV/AIDS threat. The developing world cannot respond to the pandemic without increased assistance from the United States. The U.S. must now match its rhetoric with the full resources and policy changes that the global HIV/AIDS epidemic demands. Without immediate action, the disease may forever change the world.

WORD COUNT = 11,488

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